REMARKS

The Applicant appreciates Examiner Cobanoglu's careful review of this application. Claims 1-30, 44-45, and 49-50 have been cancelled.

Upon entry of this amendment, Claims 31-43, 46-48, and 51 remain pending in this patent application. The three independent claims are Claims 31, 41, and 46. Consideration of the present application is respectfully requested in light of the above amendments to the application and in view of the following remarks.

Claim Rejections Under Obvious-Type Double Patenting

The Examiner rejected Claims 31, 41, and 46 on the ground of nonstatutory obvious-type double patenting asking unpatentable over Claim 1 of U.S. patent number 7,120,646. This rejection is respectfully traversed.

The Applicant is submitting a timely filed terminal disclaimer which will render this rejection made by the Examiner moot. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections Under 35 U.S.C. §103

The Examiner rejected Claims 31-32, 34-36, 40, and 46-47 under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,325,293 issued in the name of Dorne et al. (hereinafter, the "Dorne reference") in view of U.S. Pat. No. 6,237,006 issued in the name of Weinberg et al. (hereinafter, the "Weinberg reference"). The Examiner rejected Claims 33, 43, and 48 under 35 U.S.C. §103(a) as being unpatentable over the Dorne reference and Weinberg reference, and further in view of U.S. Patent No. 6,353,817 issued in the name of Jacobs et al. (hereinafter, the "Jacobs reference").

The Examiner also rejected Claims 37 and 38 under 35 U.S.C. §103(a) as being unpatentable over the Dorne reference and Weinberg reference, and further in view U.S. Patent No. 5,809,476 issued in the name of Ryan (hereinafter, the "Ryan reference"). The Examiner rejected Claim 39 under 35 U.S.C. §103(a) as being unpatentable over the Dorne reference and Weinberg reference, and further in view of U.S. Patent Application Publication No. 2002/0091680 published in the name of Hatzis et al. (hereinafter, the "Hatzis reference").

The Examiner further rejected Claims 41-42, and 51 under 35 U.S.C. §103(a) as being unpatentable over the Dorne reference and Weinberg reference, and further in view of U.S. Pat. No. 6,490,581 issued in the name of Neshatfar et al. (hereinafter, the "Neshatfar reference").

The Applicant respectfully offers remarks to traverse these pending rejections. The Applicant will address each independent claim separately as the Applicant believes that each independent claim is separately patentable over the prior art of record.

Independent Claim 31

The rejection of Claim 31 is respectfully traversed. It is respectfully submitted that the Dorne, Weinberg, Jacobs, Ryan, Hatzis, and Neshatfar references all fail to describe, teach or suggest a combination of: (1) receiving a selection of a medical concept (2) with a computer for display on the display device; in response to the receiving the selection of the medical concept, the computer: (3) displaying a first image (4) in a first window with the display device comprising (5) an alphanumeric string representing the selected medical concept; (6) displaying one or more second images with the display device and (7) along one or more respective geometrical rays (8) originating from a central region of the first image, (9) each second image comprising an alphanumeric string representing a parent concept of the selected medical concept and (10) displaying a first symbol on the display device (11) along each respective geometrical ray (12) originating from the central region of the first image; (13) displaying a billing code (14) comprising an alphanumeric string (15) in a second window adjacent to the first window with the display device, (16) the billing code originating from a first medical source associated with the selected medical concept; and (17) displaying a medical code adjacent to the billing code (18) in the second window with the display device, (19) the billing code (20) comprising an alphanumeric string originating from a second medical source (21) that is different from the first medical source and is associated with the selected medical concept; and (22) <u>receiving input comprising alphanumeric text through a third window on the display device for one of modifying, removing, and creating relationships between medical concepts</u>, as recited in amended Claim 31. [Emphasis supplied.]

The Dorne Reference

Figure 3G of the Dorne reference illustrates an interactive program display that is generated in response to a user clicking on any CPT Code 152 listed in the codes field on the bottom right of the screen display. See Figure 3G of the Dorne reference reproduced below:

FIG. 3G
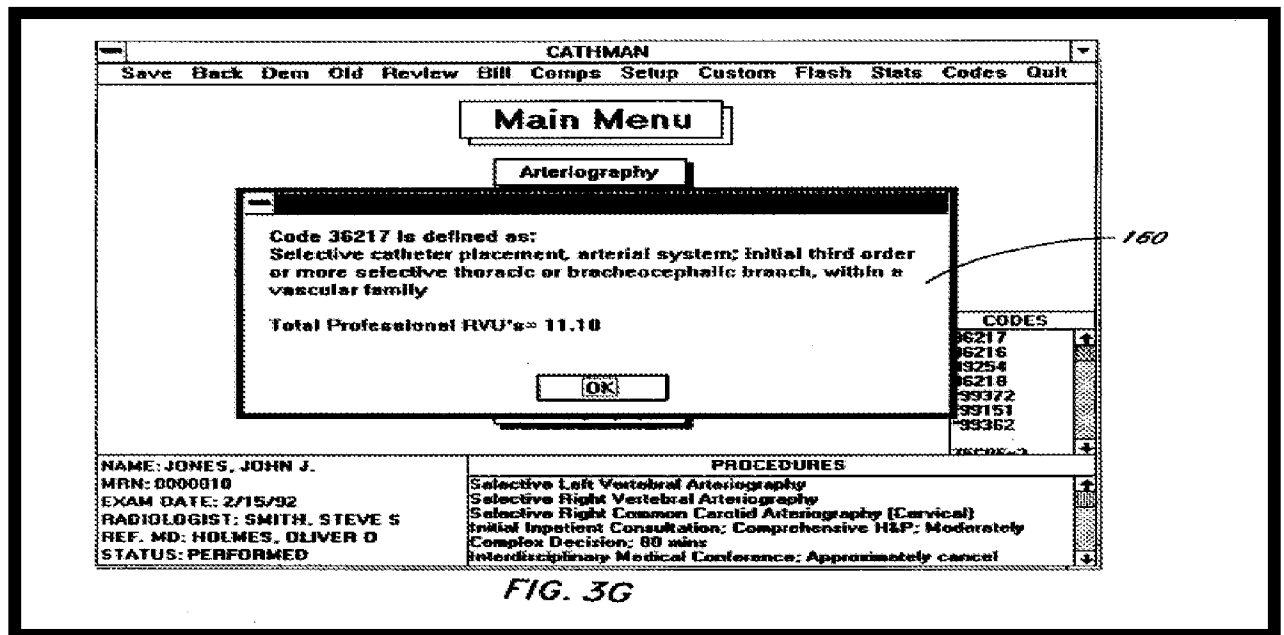
The interactive program of the Dorne reference displays a dialog box 160 containing the selected CPT code, as well as the CPT description for the APT code and a total professional RVU value for that code. Specifically, Figure 3G illustrates a dialog box that is displayed by an interactive program if the user clicks on the numbers 36217 code in the displayed codes field 156. The displayed codes field 156 is positioned on the bottom right of the screen display illustrated above. See the Dorne reference, column 7, lines 17-24.

One of ordinary skill in the art recognizes that the Dorne reference displays information in a conventional manner in which related text is merely listed in a new window that does not provide any displays involving related concepts that have predefined spatial relationships. The Dorn reference simply does not provide any teaching of displaying a first image in a first window with the display device comprising

an alphanumeric string representing the selected medical concept and displaying one or more second images with a display device and along one or more respected geometrical rays originating from a central region of the first image, each second image comprising an alphanumeric string representing a parent concept of the selected medical concept and displaying a first symbol on the display along each respective geometric ray originating from the central region of the first image, as recited in amended independent Claim 31. Further, it is apparent that the Dorne reference also does not provide any teaching of receiving input comprising alphanumeric text through a third window on the display device for one of modifying, removing, and creating relationships between medical concepts, as provided in amended Claim 31.

The Weinberg Reference

The Examiner admits that the Dorne reference fails to provide any teachings of the claimed geometrical orientations and geometrical rays as recited in the claims.

To make up for this geometrical orientation deficiency of the Neshatfar reference, the Examiner relies on the Weinberg reference. The Weinberg reference describes a technology that provides a visual web site analysis program. The technology has a mapping component that scans a web site over a network connection and builds a site map which graphically depicts URLs and links of a web site. Site maps as illustrated in Figure 1 (reproduced below) are generated using a unique layout and display methodology which allows a user to visualize the overall architecture of a web site.


FIG. 1

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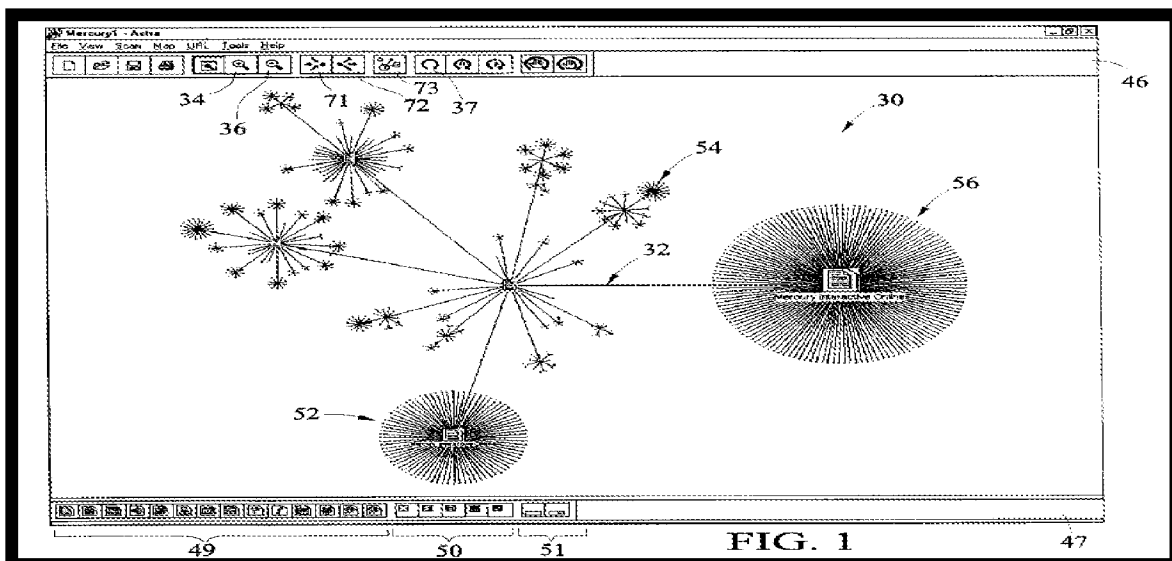
Specifically, Figure 1 of the Weinberg reference illustrated above is a site map 30 of a demonstration web site which was derived from the actual web site of Mercury Interactive, Inc. Reference numeral 32 denotes a hyperlink which links the home page URL (shown at the center of the map 30) to another HTML page 56 (displayed at the right of the home page).

One of ordinary skill in the art recognizes that the site map 30 is not at all related to medical concepts as recited in the independent patent claims.

The Jacobs Reference

The Jacobs reference generally provides a system that can create and modify a knowledge base for use in medical decision making. The computer-implemented system can include the user interface for displaying a knowledge base as a hierarchal multiplicity of nodes. Jacobs reference, column 3, lines 5-10. The system of Jacobs can have alternative formats in which to display the nodes, including a multiplicity of grids, an a multiplicity of branches in the form of a logic tree. Jacobs reference, column 3, lines 30-35.

Figure 17C of the Jacobs reference (reproduced below) illustrates one of the nodes that can be displayed. This user interface includes notes references 261 that allow a user to select one of the members of a list as an alternative to tying in a new note. Jacobs reference, column 15, lines 1-10.

Fig 17c

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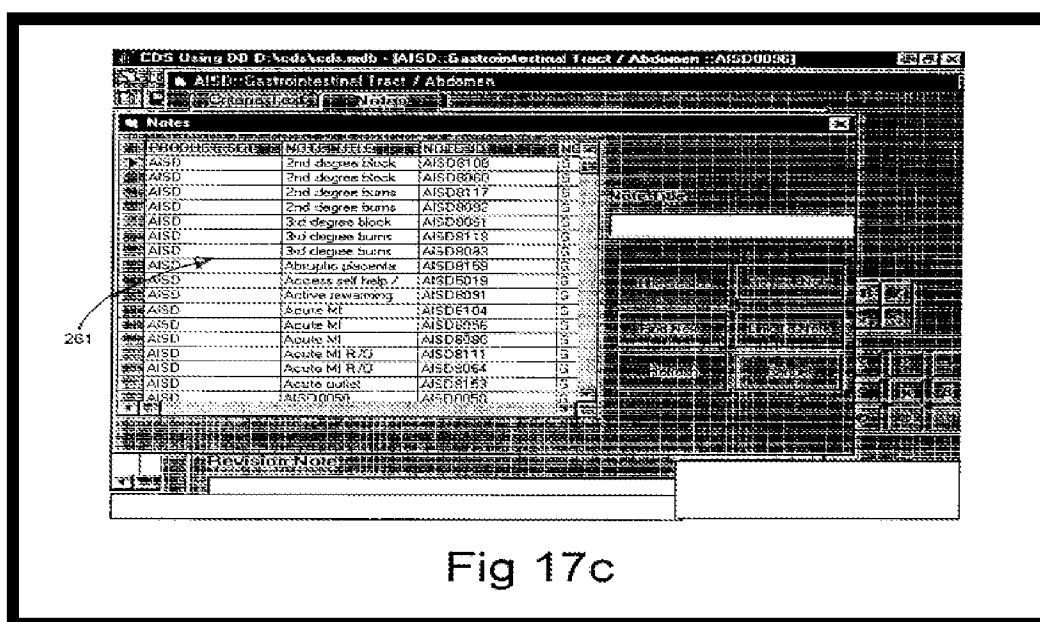
Like the Dorne reference, one of ordinary skill in the art recognizes that the Jacobs reference does not provide any teaching of displaying a first image in a first window with a display device comprising an alphanumeric string representing a selected medical concept, displaying one or more second images with a display device and along one or more respected geometrical rays originating from a central region of the first image, each second image comprising an alphanumeric string representing a parent concept of the selected medical concept and displaying a first symbol on a display on each respective geometrical ray originating from the central region of the first image, as recited in Independent Claim 31. Further, it is apparent that the Jacobs reference also does not provide any teaching of receiving input comprising alphanumeric text through a third window on the display device for one of modifying, removing, and creating relationships between medical concepts, as provided in amended Claim 31.

The Ryan Reference

The Ryan reference generally describes a system for coding data. New data to be coded may comprise information relating to an invent, item or operation. Ryan reference, abstract.

Fig. 1
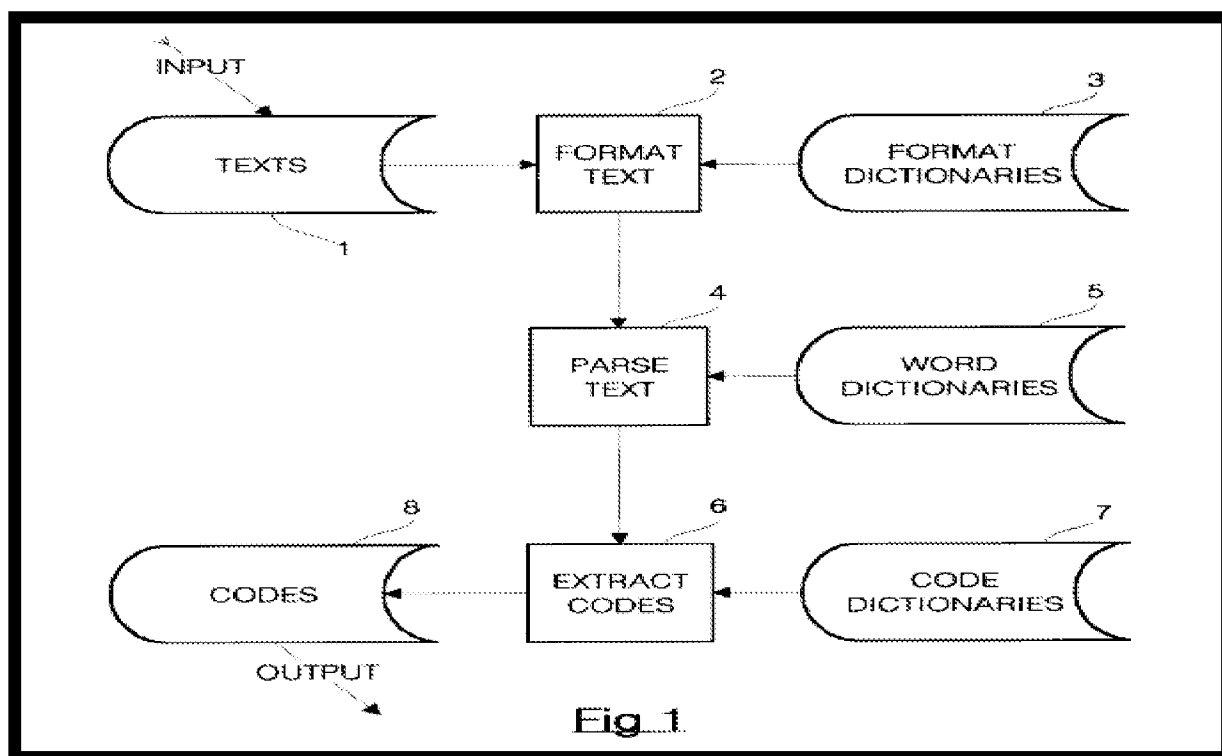
Specifically, the Ryan reference explains that text such as from a surgeons notes regarding diagnosis and operations can be input into the flow diagram or program as illustrated in Figure 1 (reproduced above). The process of inputting the text may be way of a typist, typing a surgeons dictated notes subsequent to an operation or may be derived from optically scanned documents in which case optical character recognition (OCR) could be used. Ryan reference, column 3, lines 4-7.

At block 2 of the flow chart illustrated in Figure 1, the input text is formatted in which most punctuation marks and plural or tense modifiers are removed from the text. In order to assist in formatting the input text, format dictionaries at Block 3 are perused to compare each word being formatted to a list of words in the dictionaries.
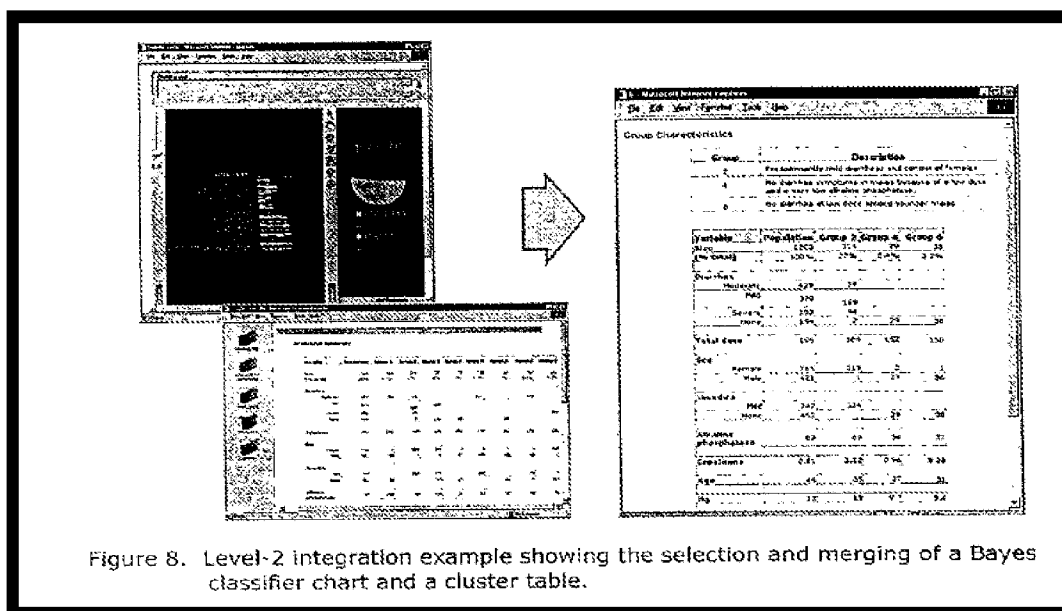
Once the text has been formatted it is passed to Block 4 in which the bulk of the analysis of the text is carried out in association with Word dictionaries at Block 5 which contain tables of words which may be compared to the words being analyzed at Block 4. In Block 4, the formatted text is parsed when each word or phrase of the input text is expressed symbolically in the form of an indicative code or sub-part called a "code-snippet". Eventually, the code-snippets may be altered, depending on the rest of the words in the sentence or clause. The code-snippets are grouped into subgroups or "clusters" representing a sentence, phrase or clause in the input text. Ryan reference, lines 10-45.

One of ordinary skill in the art recognizes that the Ryan reference, similar to the Dorne and Jacobs references, does not provide any teaching of displaying a first image in a first window with a display device comprising a alphanumeric string representing the selected medical concept, displaying one or more second images with the display device and along one or more respective geometrical rays originating from a central region of the first image, each second image comprising an alphanumeric string representing a parent concept of the selected medical concept in displaying a first symbol on the display device along each respective geometrical ray originating from the central region of the first image, a recited in independent Claim 31. Further, it is apparent that the Ryan reference also does not provide any teaching of receiving input comprising alphanumeric text through a third window on the display device for one of modifying, removing, and creating relationships between medical concepts, as provided in amended Claim 31.

The Hatzis Reference

The Hatzis reference describes a method and system for data integration. The method and system allow integration of data from different formats into a single, integrated format for presentation to user. The method and system can include a relational database for storing records in a taxonomic organization a query-based analysis module for extracting hierarchical patterned records from the relational database, and an integration module for organizing pattern records into various user-defined formats. Hatzis reference, paragraph 0005.

Figure 8 of the Hatzis reference illustrates a screen shot showing example of a level-2 integration output. The Hatzis reference explains that two-Bayes classifier patterns that represent patterns from consecutive days are reviewed by the algorithm in which the algorithm first looks for changes in the relative order of factors within the pattern. The Hatzis reference explains that factors for which the order has changed are highlighted in a different color in the display. In the next step, the algorithm looks closer within each factor and in this step, it compares the conditional probabilities for each factor range given the value of the outcome and highlights a range that has significantly changed probabilities compared to the previous time point. The results of the comparison are presented in a tabular form as illustrated in Figure 8. Hatzis reference, paragraph 0077.

Figure 8. Level-2 integration example showing the selection and merging of a Bayes classifier chart and a cluster table.

One of ordinary skill in the art recognizes that the Hatzis reference, similar to the Dorne, Jacobs and Ryan references described above, does not provide any teaching of displaying a first image in a first window with the display device comprises a alphanumeric string representing the selected medical concept, displaying one or more second images with the display device and along one or more respective geometrical rays originating from a central region of the first image, each second image comprising an alphanumeric string representing a parent concept of the selected medical concept and displaying a first symbol on the display along each respective geometrical ray originating from the central region of the first image, as recited in amended independent Claim 31. Further, it is apparent that the Hatzis reference also does not provide any teaching of receiving input comprising alphanumeric text through a third window on the display device for one of modifying, removing, and creating relationships between medical concepts, as provided in amended Claim 31.

The Neshatfar Reference

Figure 5 of the Neshatfar reference illustrates one example of graphical user interface presenting information. When a user selects or "clicks on" a desired object such as CFamily 510, additional attributes connected by a line are displayed. For example, when the CFamily object 510 is selected, attributes of the object are shown in a new window CFamily_father 515. See Figure 5 of the Neshatfar reference below.

FIG. 5
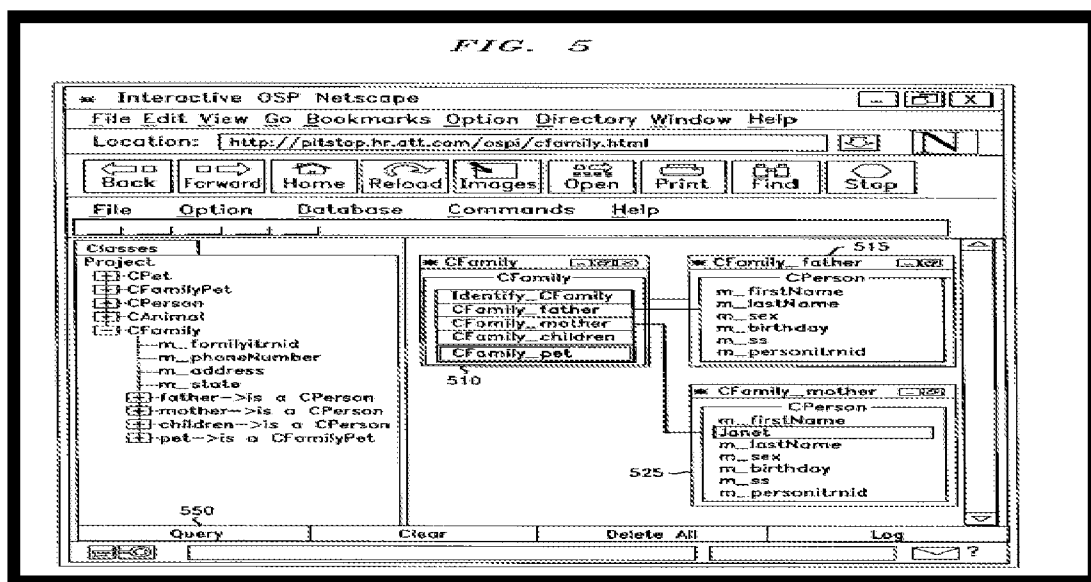
As another example, if the CFamily mother object is selected, additional attributes of this object are shown in a new window CFamily_mother 525 window. If the field "m_firstname" field is selected in window 515, a user can enter data such as the name "Janet" as illustrated in Figure 5 of the Neshatfar reference. See the Neshatfar reference, column 8, lines 33-57.

The Neshatfar reference only illustrates a database that describes family relationships and interests of particular family members. See the Neshatfar reference, column 1, lines 20-30.

The Neshatfar reference does not provide any teaching of displaying a first image in a first window with the display device comprises a alphanumeric string representing the selected medical concept, displaying one or more second images with the display device and along one or more respective geometrical rays originating from a central region of the first image, each second image comprising an alphanumeric string representing a parent concept of the selected medical concept and displaying a first symbol on the display along each respective geometrical ray originating from the central region of the first image, as recited in amended independent Claim 31.

Further, it is apparent that the Neshatfar reference also does not provide any teaching of receiving input comprising alphanumeric text through a third window on the display device for one of modifying, removing, and creating relationships between medical concepts, as provided in amended Claim 31. The Neshatfar reference only receives queries through its user interface and does not modify, remove, or create relationships between its concepts.

Summary for Independent Claim 31

In light of the differences between amended independent Claim 31 and the Dorne, Jacobs, Ryan, Hatzis, and Neshatfar references pointed out above, one of ordinary skill in the art recognizes that these prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 31. Accordingly, reconsideration and withdrawal of the rejection of independent Claim 31 are respectfully requested.

Independent Claim 41

The rejection of Claim 41 is respectfully traversed. It is respectfully submitted that the Dorne, Weinberg, Jacobs, Ryan, Hatzis, and Neshatfar references, fail to describe, teach or suggest the combination of: (1) receiving a selection of a medical concept (2) with a computer for display on the display device; (3) in response to the selection, the computer: (4) displaying a first image (5) in a first window with the display device (6) comprising an alphanumeric string representing the selected medical concept; (7) displaying one or more second images with the display device (8) and along one or more respective geometrical rays (9) originating from a central region of the first image, (10) each second image comprising an alphanumeric string (11) representing a parent concept of the selected medical concept and (12) displaying a first symbol on the display device (13) along each respective geometrical ray originating from the central region of the first image; (14) displaying a health care management term (15) comprising an alphanumeric string (16) in a second window adjacent to the first window with the display device, (17) the health care management term being associated with the selected medical concept; and (18) displaying a medical procedure (19) comprising an alphanumeric string in a third window adjacent to the first and second windows with the display device, (20) the medical procedure being associated with the first medical concept, as recited in amended independent Claim 41. These combination of references also fail to suggest <u>receiving input comprising alphanumeric text through a fourth window on the display device for one of modifying, removing, and creating relationships between medical concepts.</u> [Emphasis supplied.]

Similar to the analysis of independent Claim 31, the Dorne, Weinberg, Jacobs, Ryan, Hatzis and Neshatfar references do not provide any teaching of first and second images comprising alphanumeric strings representing concepts in a first window and displaying a healthcare management term comprising an alphanumeric string in a second window adjacent to the first window with a display device, and displaying a medical procedure comprising an alphanumeric string and a third window adjacent to the first and second windows with the displayed device, as recited in amended independent Claim 41.

In light of the differences between Claim 41 and the references mentioned above, one of ordinary skill in the art recognizes that the prior art references, alone or in

combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 41. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claim 46

The rejection of Claim 46 is respectfully traversed. It is respectfully submitted that the Dorne, Weinberg, Jacobs, Ryan, Hatzis, and Neshatfar references, fail to describe, teach, or suggest the combination of : (1) receiving a selection of a medical concept (2) with a computer for display on the display device; (3) in response to the selection, the computer: (4) displaying a first image in a first window with the display device (5) comprising an alphanumeric string representing the selected medical concept; (6) displaying one or more second images with the display device and (7) along one or more respective geometrical rays (8) originating from a central region of the first image, (9) each second image comprising an alphanumeric string representing a parent concept of the selected medical concept and (10) displaying a first symbol on the display device (11) along each respective geometrical ray originating from the central region of the first image; (12) displaying a first medical code (13) comprising an alphanumeric string (14) in a second window adjacent to the first window with the display device, (15) the first medical code being associated with the medical concept; (16) displaying a second medical code (17) comprising an alphanumeric string in the second window adjacent to the first medical code with the display device, (18) the second medical code being associated with the medical concept, as recited in amended independent Claim 46. Claim 46 also describes (19) receiving input comprising alphanumeric text through a third window on the display device for one of modifying, removing, and creating relationships between medical concepts which is not shown by any of the references, especially the Neshatfar reference.

Similar to the analysis of independent Claim 31, the Dorne, Weinberg, Jacobs, Ryan, Hatzis, and Neshatfar references do not provide any teaching of first and second images in a first window that comprise alphanumeric strings representing concepts and displaying a first medical code comprising an alphanumeric string in a second window adjacent to the first window and displaying a second medical code comprising an

alphanumeric string in the second window adjacent to the first medical code with a display device, as recited in amended independent Claim 46.

In light of the differences between Claim 46 and the references mentioned above, one of ordinary skill in the art recognizes that the prior art references, alone or in combination, cannot anticipate or render obvious the recitations as set forth in amended independent Claim 46. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Dependent Claims 32-40, 42-43, 47-48, and 51

The Applicant respectfully submits that the above-identified dependent claims are allowable because the independent claims from which they depend are patentable over the cited references. The Applicant also respectfully submits that the recitations of dependent Claims 32-40, 42-43, 47-48, and 51 are of patentable significance. Accordingly, reconsideration and withdrawal of the rejections of dependent claims 32-40, 42-43, 47-48, and 51 are respectfully requested.

CONCLUSION

The foregoing is submitted as a full and complete response to the Final Office Action mailed on March 13, 2009. The Applicant and the undersigned thank Examiner Cabanoglu for the consideration of these remarks. The Applicant has submitted remarks to traverse the rejections of Claims 41-51 from the prior art of record. The Applicant respectfully submits that the present application is in condition for allowance. Such Action is hereby courteously solicited.

Should the Examiner have any comment regarding the Applicant's response or believe that a teleconference would expedite prosecution of the pending claims, Applicant requests that the Examiner telephone Applicant's undersigned lawyer listed below.

Respectfully submitted,

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